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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,953	05/25/2001	Kenneth C. Gross	51583/238	5975

7590

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT PAPER NUMBER

2861

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/865,953

Applicant(s)

GROSS ET AL.

Examiner

Michael P Nghiem

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 6. 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "means for defining ...", "means for identifying ...", "means for altering ...", "means for determining ..." (claim 14) must be shown or the feature(s) cancelled from the claim(s). No new matter should be entered.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 9-16, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Gross et al. (US 5,764,509).

Gross et al. discloses all the claimed features of the invention including:

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- a method and means for monitoring non-coincident, non-stationary, process signals

(Figs. 1, 2), comprising:

- using an automated system (automated system of Figs. 1, 2) to define a mean, variance, and length of a reference signal (Abstract, lines 2-6);

- using an automated system to identify the leading and falling edges of a monitored signal and the length of the monitored signal (Abstract, lines 3-5);

- using an automated system to resample the monitored signal (loop of Fig. 2) to correlate the length of the reference signal to the length of the monitored signal (Abstract, lines 7-9);

- using an automated system to compare the reference signal and the resampled monitored signal such that the reference signal and the resampled monitored signal are coincident in time with each other (Abstract, lines 7-9);

- using an automated system to compare the resampled monitored signal to the reference signal to determine whether the resampled monitored signal is within a set of predesignated operating conditions (Abstract, lines 9-11);

- the resampled monitored signal is compared to the reference signal using a sequential probability ratio test (SPRT; Fig. 1);

- the monitored signal and the reference signal comprise repetitive waveforms (Fig. 6a);

- the monitored signal and the reference signal comprise sinusoidal-based waveforms (Fig. 6a);

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- the reference signal is defined by comparing a plurality of sample signals from at least one source (Abstract, lines 2-3);
- the monitored and reference repetitive waveforms are derived from at least a portion of an industrial process (Abstract, lines 1-2);
- the monitored and reference repetitive waveforms are derived from a biological process (column 62, line 65 – column 63, line 2).

### ***Allowable Subject Matter***

3. Claims 5-8 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Reasons For Allowance***

4. The method or combination as claimed wherein the monitored signal is compared to the reference signal by using a bounded angle ratio test to determine the resampling required of the monitored signal is not disclosed, suggested, or made obvious by the prior art of record.

Wegerich et al. (US 6,202,038) discloses a bounded angle ratio test for comparing two non-linearly related signals (Fig. 1d) but does not disclose resampling of the signals.

**Contact Information**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hilten can be reached at (703) 308-0719. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



MICHAEL NGHIEM  
PRIMARY EXAMINER

Michael Nghiem

September 8, 2002